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09/803,979

03/13/2001

Jiro Ebihara

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07/31/2002

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EXAMINER

PEREZ, GUILLERMO

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/803,979

Applicant(s)

EBIHARA ET AL.

Examiner

Guillermo Perez

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) 6 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 5, 2002 has been entered.

Election/Restrictions

Applicant's election with traverse of claims 1-5 in Papers No. 1 and 11 is acknowledged. The traversal is on the ground(s) that the interpretation of the anchoring portion is incorrect. This is not found persuasive because the invention described in claims 1-5 of the amendment filed on December 21, 2001 are different from the claims 1-5 filed on May 15, 2002.

The anchoring portion described in the amendment filed on May 15, 2002 can be made by stamping/cutting the laminations located near the end of the armature with a slot depth smaller than the slot depth of the rest of the armature laminations. This can be made by cutting the slot closing projections of the laminations located near the end of the armature at a lower radial position of the slot than the radial position of the slot closing projections of the rest of the laminations. The end product will have a belt-like anchoring portion applying more pressure on the windings where the laminations with

lowered slot closing projections are located. No pressing is needed in this embodiment, however the end product is identical to the one being claimed.

The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

Claims 3 and 4 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 3 is almost identical to its parent claim 2. Claim 4 only recites limitations already mentioned in claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shiga et al. (U. S. Pat. 5,508,577) in view of Akira et al. (JP 62247736).

Shiga et al. disclose an armature of a rotary electric machine comprising:
a rotary shaft;

an armature core composed of a plurality of laminated sheets through which the shaft is inserted and a plurality of slots and projections at the outer periphery thereof, an

armature coil composed of a plurality of conductor segments having in-slot portions being respectively inserted into the slots; and

a commutator formed by a portion of the armature coil to be integrated with the armature coil at an end thereof.

However, Shiga et al. do not disclose that the armature core comprises a belt-like pressed anchoring portion disposed at a portion of the laminated sheets near the commutator for anchoring a part of each of the in-slot portions that correspond to the portion of the laminated sheets to the armature core more strongly than other parts of the in-slot portions. Shiga et al. do not disclose that the anchoring portion is disposed at least at a space corresponding to one of the laminated sheets apart from the end adjacent to the commutator. Shiga et al. do not disclose that the anchoring portion comprises a belt-like pressed portion of the armature core. Shiga et al. do not disclose that the pressed portion has an outside diameter 0.08% - 0.6 % less than the outside diameter of the rest of the armature.

Akira et al. disclose that the armature core (1) comprises a belt-like pressed anchoring portion (1a) disposed at a portion of the laminated sheets near the commutator for anchoring a part of each of the in-slot portions (2) that correspond to the portion of the laminated sheets to the armature core (1) more strongly than other parts of the in-slot portions (2).

Akira et al. disclose that the anchoring portion (1a) is disposed at least at a space corresponding to one of the laminated sheets apart from the end adjacent to the commutator (figures 5 and 6). Akira et al. disclose that the anchoring portion (1a)

comprises a belt-like pressed portion of the armature core (1). Akira's invention has the purpose of preventing the coil from jumping out easily.

It would have been obvious at the time the invention was made to modify the armature of Shiga et al. and provide it with the belt-like pressed anchoring portion configuration disclosed Akira for the purpose of preventing the coil from jumping out easily.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the pressed portion with an outside diameter 0.08% - 0.6 less than the outside diameter of the rest of the armature since it has been held that where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

Response to Arguments

Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443. The examiner can normally be reached on Monday through Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308 1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703)


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305 3432 for regular communications and (703) 305 3432 for After Final
communications.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is (703) 308
0956.

Guillermo Perez
July 26, 2002



NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800